

New time-shifting system to slash energy costs and halve commercial heating emissions

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[INX](#), a provider of smart building and energy technologies to OEMs and facilities engineers, today announced the launch of a pioneering smart energy management system that could dramatically reduce the cost and climate impact associated with heating buildings.

INX's new inxware-energy platform, which is being showcased at [Smart City Expo World Congress](#) in Barcelona, improves the financial and environmental efficiency of heating and hot water systems by using state-of-the-art modelling and computational methods to identify the best times to heat the water. It considers each customer's energy consumption and a range of supply factors, and automatically optimises the timing of heating and storage temperatures based on usage patterns and when energy is cheapest and most abundant.

The system can be integrated into OEM heating products or provided as a standalone electronic product for use in commercial, industrial and domestic heating systems. The system automatically configures to users' requirements and system parameters, requiring only initial selection of any time-of-use tariffs or other differential rate energy such as solar PV.

Insight from pilot deployments indicates that INX's system can reduce grid electricity consumption significantly more than fixed timers where solar PV is available. Hot water costs can be reduced by more than 80 percent during summer and typically up to 40 percent on winter days by minimising wasteful cylinder re-heating.

Dr Pierre Drezet, director at INX, comments: “Many people on time-of-use energy tariffs already benefit from time-shifting electricity consumption by running their dishwasher or washing machine overnight when electricity is cheaper. INX takes that concept to the next level, allowing commercial facilities, housing associations or homeowners to automatically maximise financial and carbon savings by reserving storage capacity for when energy is cheapest and also when more renewable energy is available.”

“The carbon intensity of energy generation can fluctuate by a factor of five on weekly timescales and substantially during any given day. This variation is predicted accurately in many countries alongside customers’ consumption factors and increasingly drives wholesale costs. We believe it is possible to achieve significant cost savings and potentially halve the carbon intensity of heat energy consumption by time-shifting when it is drawn from the network.”

Chris Dymond, director of digital capacity-building agency [Unfolding](#) and also [Sheffield Digital](#), the city’s digital industries association, comments: “Dr Drezet’s insight into current energy realities and the ability of INX to implement technologies to enable time-shifting using cheap and available hot water storage are an excellent example of the way smart thinking and smart technologies combine to benefit consumers and businesses.”